

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF TWO TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF OXON HILL ROAD AND RAMP E-1/SOUTH ROAD AND RAMP E-1 AND PRIVATE ENTRANCE IN PRINCE GEORGES COUNTY, MARYLAND. OXON HILL ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

1. OXON HILL ROAD AND RAMP E-1/SOUTH ROAD

THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE OXON HILL ROAD APPROACHES OPERATING CONCURRENTLY AND THE RAMP E-1/SOUTH ROAD APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE LEFT-TURN PHASING IS PROVIDED FOR ALL APPROACHES.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED TO CROSS THE NORTH LEG OF OXON HILL ROAD AND PEDESTRIAN INDICATIONS ARE PROVIDED TO CROSS SOUTH ROAD.

2. RAMP E-1 AND PRIVATE ENTRANCE

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE WESTBOUND RAMP E-1 APPROACH OPERATING ALONE AND THE EASTBOUND RAMP E-1 AND PRIVATE ENTRANCE APPROACHES OPERATING CONCURRENTLY. WHEN ACTUATED, THE QUEUE DETECTOR WILL CALL A SPLIT DEMAND.

CONTROLLER REQUIREMENTS

1. OXON HILL ROAD AND RAMP E-1/SOUTH ROAD

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE, AND ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

2. RAMP E-1 AND PRIVATE ENTRANCE

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE, AND TWO (2), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SYNDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SYNDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER FOR THE TRAFFIC SIGNAL AT OXON HILL ROAD.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.04-01 (SHOULDER WORK)

STANDARD NO. MD-104.02-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.03-01 (INTERSECTION FLAGGING OPERATION)

STANDARD NO. MD-104.81-02 (MOBILE SERVICE WORK)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. MAJIB SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358

MR. AUGUSTINE REBISH
DISTRICT UTILITIES ENGINEER
PHONE: (301) 513-7350

MR. RALEIGH MEDLEY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
7 900000	1 EACH	TRAFFIC RESPONSIVE MASTER CONTROLLER
7 900000	1 EACH	VIDEO DETECTION INTERFACE EQUIPMENT
963010	3 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
971017	2 EACH	EIGHT PHASE, FULL TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
973023	10 181 7 435 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	10 - 7 3 EACH	R3-5(L) SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT
	10 - 4 5 EACH	R3-5(R) SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT
	- 2 EACH	R3-1 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT
	- 1 EACH	R3-2 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT
	- 1 EACH	R10-11a SIGN (24 IN. X 30 IN.) - MAST ARM MOUNT
	7 - 2 EACH	D-3(1) SIGN "OXON HILL RD" (VARIABLE X 16") DUAL FACED - MAST ARM MOUNT
	- 1 EACH	W3-3 SIGN (48 IN. X 48 IN.) - GROUND MOUNT
	- 1 EACH	R3-1 SIGN (30 IN. X 30 IN.) - POLE MOUNT
	10 - 2 EACH	D-3(1) SIGN "SOUTH RD" (VARIABLE X 16") DUAL FACED - MAST ARM MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
861107	10 230 7 205 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
861108	10 4090 7 2545 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
861116	7 1300 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 A.W.G.)
862101	7 2300 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING
862102	10 645 7 670 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
10 865001	2 EACH	FURNISH AND INSTALL PUSHBUTTON AND SIGN
866103	5 EACH	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM ON SIGNAL STRUCTURE
7 970165	90 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
871202	2 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
800000	1 EACH	REMOVAL AND DISPOSAL OF EXISTING MATERIAL AND EQUIPMENT
7 800000	1 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH TWIN 50 FT./50 FT. MAST ARMS
800000	2 EACH	INSTALL MICROLOOP PROBE SET WITH 500 FT. LEAD-IN
7 800000	1 EACH	FURNISH AND INSTALL 60 AMP NON-FUSED DISCONNECT
7 800000	2 EACH	CONCRETE COLLAR AT UTILITY POLE BASE
7 800000	440 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
10 800000	1 EACH	FURNISH AND INSTALL PUSHBUTTON POLE

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
120500	LUMP SUM	MAINTENANCE OF TRAFFIC
120610	7 U.D.	ARROW PANEL
120620	200 S.F.	TEMPORARY TRAFFIC SIGNS
203030	10 14 42 C.Y.	TEST PIT EXCAVATION
10 585620	650 L.F.	12 IN. WHITE THERMOPLASTIC PAVEMENT MARKINGS
585624	10 270 400 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKINGS
801004	10 35 7 34 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
801106	20 L.F.	FURNISH AND INSTALL 4 IN. X 6 IN. WOOD SIGN SUPPORTS
802501	10 1130 7 000 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
7 802560	900 L.F.	FURNISH AND INSTALL 1 CONDUCTOR #1/0 STRANDED BARE COPPER GROUND WIRE
10 805011	10 L.F.	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT GALVANIZED SLEEVE
10 805115	45 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
7 805118	100 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805125	10 1250 7 1200 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	10 765 7 705 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	7 700 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805160	60 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
7 806200	1 EACH	FURNISH AND INSTALL METERED SERVICE PEDESTAL
7 807400	2 EACH	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS, 60 AMPS
810010	100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. - THHN/THWN
811001	10 20 7 40 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	16 S.F.	INSTALL GROUND MOUNTED SIGN
813015	10 165 7 440 S.F.	INSTALL OVERHEAD SIGN
7 816001	4 EACH	VIDEO DETECTION CAMERA
7 816005	1 EACH	INSTALL 250 FT. VIDEO DETECTION CAMERA TO CONTROLLER
7 816010	3 EACH	INSTALL 500 FT. VIDEO DETECTION CAMERA TO CONTROLLER
10 818004	1 EACH	10 FT. BREAKAWAY PEDETAL POLE
7 818021	3 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH A 70 FT. MAST ARM
818041	1 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH A 60 FT. MAST ARM
818050	1 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH TWIN 50 FT./60 FT. MAST ARMS
818051	1 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH TWIN 50 FT./70 FT. MAST ARMS
822002	450 L.F.	FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND)
831010	7 5 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
832017	150 L.F.	CABLE - 1 CONDUCTOR, NO. 4 A.W.G., TYPE USE, 600V
832018	1400 L.F.	CABLE - 1 CONDUCTOR, NO. 2 A.W.G., TYPE USE, 600V
837001	10 13 44 EACH	FURNISH AND INSTALL GROUND ROD- 3/4 IN. DIAMETER X 10 FT. LENGTH
860272	10 66 7 45 EACH	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
10 860278	4 EACH	12 INCH PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT
10 860282	4 EACH	12 INCH PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT
860292	10 3 2 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC
861104	7 2005 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (ALUMINUM SHIELDED)
10 861105	340 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 14 A.W.G.)
10 861106	980 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 3 CONDUCTOR (NO. 14 A.W.G.)

10 REVISED QUANTITIES DUE TO REDLINE REVISION NO.10

7 REVISED QUANTITIES REDLINE REVISION NO.7



Whitman, Reardon
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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET
RAMP E-1 INTERSECTIONS

DRAWN BY: S.BLOSS
CHECKED BY: MLEARY
SCALE: NONE
DATE: 5/11/2004

F.A.P. NO.
S.H.A. NO. PG3465178
COUNTY: PRINCE GEORGES
LOG MILES:

TS NO.
T.I.M.S. NO.

SHEET NO.
OF

TSP-4